

Data Validation Checklist

Semivolatile Organic Analyses

Project: 35TH Avenue Superfund Site
 Laboratory: TestAmerica – Savannah, GA
 Method: SW-846 8270D Low-Level (PAH)
 Matrix: Soil
 Reviewer: Karen M Trujillo, URS Group, Inc.
 Concurrence¹: Nicole Lancaster, URS Group, Inc.

Project No: 60430028; 1
 Job ID.: 680-106803-1
 Associated Samples: Refer to Attachment A (Sample Summary)
 Samples Collected: 10/27/2014 & 10/28/2015
 Date: 08/26/2015
 Date: 08/27/2015

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
1. Were sample storage and preservation requirements met? If temperature >6°C, then J/UJ flag results.	✓				
2. Were all COC records signed and integrity seals intact, indicating that COC was maintained for all samples?	✓				
3. Were there any problems noted in laboratory data package concerning condition of samples upon receipt?		✓			
4. Do any soil samples contain more than 50% water? If yes, then results are to be reported on a wet-weight basis.		✓			
5. Were holding times met (≤ 7 and 14 days from collection to extraction for aqueous and solid samples, respectively; ≤ 40 days from extraction to analysis)? If not, then J/UJ flag sample results. If grossly (2x) exceeded, then flag J/R.	✓				
6. Were results for all project-specified target analytes reported?	✓				
7. Were project-specified Reporting Limits achieved for undiluted sample analyses?	✓				
8. Were samples with analyte concentrations exceeding the calibration range of the instrument re-analyzed at a higher dilution? If not, then J flag sample result.	✓				
9. Was a method blank extracted with each batch (i.e., one per 20 samples, per batch, per matrix and per level)?	✓				
10. Were target analytes detected in the method blank?		✓			
11. Are equipment/rinsate blanks associated with every sample? If no, note in DV report.		✓		According to the QAPP, a rinsate blank is to be collected after each decontamination event, which occurs once per week per the client. A rinsate blank is not associated with this sampling event. Blank contamination will be evaluated based on method blank results.	
12. Were target analytes detected in equipment/rinsate blanks?			✓		
13. Were analytes detected in samples below the blank contamination action level? If yes, U flag positive sample results <5x associated blank concentration (10x for common blank contaminants—phthalates)			✓	Blank contamination does not exist.	

¹ Independent technical reviewer

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
14. Is a field duplicate associated with this Job?	✓			<ul style="list-style-type: none"> CV0971JJ-CSD6" (680-106803-6) is a field duplicate of sample CV0971JJ-CS6" (680-106803-5). CV0971NN-CSD12" (680-106803-12) is a field duplicate of sample CV0971NN-CSD12" (680-106803-11). 	
15. Was precision deemed acceptable as defined by the project plans?	✓			Refer to Attachment B (Field Duplicate Evaluation)	
16. Were DFTPP ion abundance criteria (i.e., Table 3 of SW-846 8270D) met? If no, professional judgment may be applied to determine to what extent the data may be utilized.	✓			Alternate tuning criteria were used by the laboratory (i.e., EPA Method 525.2). All ion abundance criteria were met per EPA Method 525.2.	
17. Were samples analyzed within 12 hours of the DFTPP tune? If no, professional judgment may be applied to determine to what extent the data may be utilized.	✓				
18. Were initial and continuing calibration standards analyzed at the proper frequency for each instrument? <ul style="list-style-type: none"> Ensure that a minimum of five standards are used for the initial calibration. If no, use professional judgment to determine the effect on the data and note in the reviewer narrative. An initial calibration is to be associated with each sample analysis. A continuing calibration standard is to be analyzed for every 12 hours of sample analysis per instrument. 	✓			<ul style="list-style-type: none"> Instrument ID: CMSK Initial Calibration: 10/22/2014 ICV: 10/22/2014 @ 16:40 CCV: 11/03/2014 @ 10:32 	
19. Were calibration results within laboratory/project specifications? <ul style="list-style-type: none"> ICAL (Criteria: ≤ 20 mean %RSD ($\leq 50\%$ for poor performers), OR $r \geq 0.995$, OR $r^2 \geq 0.99$, and RRF ≥ 0.050 (≥ 0.010 for poor performers)): <ul style="list-style-type: none"> If %RSD > 20 ($> 50\%$ for poor performers), or $r < 0.995$, or $r^2 < 0.995$, then J flag positive results and UJ flag non-detects If mean RRF < 0.050 (< 0.010 for poor performers), then J flag positive results and R flag non-detects (unless the lab analyzed a detectability check standard) ICV and CCV (ICV Criteria: $\leq \pm 30\%$D; CCV Criteria: $\leq \pm 20\%$D ($\leq 50\%$ for poor performers) and RF ≥ 0.050 (≥ 0.010 for poor performers)): <ul style="list-style-type: none"> If %D > Control Limit ($> 50\%$ for poor performers), then J flag positive results and UJ flag non-detects If RF < 0.050 (< 0.010 for poor performers), then UJ flag non-detected semivolatile target compounds 		✓		CCV of 11/03/2014 @ 10:32 (CCVIS 356621/2), instrument CMSK. Pyrene @ -20.7%D (Lab: ≤ 20 , Project: ≤ 20). Negative bias. J and UJ-Flag all positive and non-detect pyrene sample results (respectively), as all samples are associated with this CCV.	J/UJ
20. Was a LCS prepared for each batch and matrix?	✓				
21. Were LCS recoveries within lab control limits? If no, J flag positive results when %R > Upper Control Limit (UCL) and J/R flag results when %R < Lower Control Limit (LCL).	✓				
22. Were LCS/LCSD RPD within lab specifications? If no, J flag positive results and UJ flag non-detects			✓	LCS only	

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
23. Was a MS/MSD pair extracted at the proper frequency (one per 20 samples per batch)?	✓				
24. Is the MS/MSD parent sample a project-specific sample?	✓			Batch 356607: 680-106803-2 (CV0971VV-CS12"), MS/MSD	
25. For all analytes with native sample concentrations < 4 x spiking level, were MS and MSD recoveries within laboratory/project specifications? <i>Only QC results for project samples that are reported under this Job ID are evaluated.</i> <ul style="list-style-type: none"> • If the native sample concentration > 4x spiking level, then an evaluation of interference is not possible. • If either MS or MSD recovery meets control limits, qualification of data is not warranted. • MS and MSD %R<10: J and R Flag positive and ND results, respectively • MS and MSD %R >10 and <LCL: J Flag positive and UJ flag non-detect results • MS and MSD R% >UCL (or 140): J Flag positive results 	✓				
26. For all analytes with native sample concentrations < 4 x spiking level, were laboratory criteria met for precision during the MS and MSD analyses? <i>Only QC results for project samples that are reported under this Job ID are evaluated.</i> <ul style="list-style-type: none"> • If the native sample concentration > 4x spiking level, then an evaluation of interference is not possible. • If %RPD > UCL, J flag positive result and UJ flag non-detect result 	✓				
27. Were surrogate recoveries within lab/project specifications? <ul style="list-style-type: none"> • If %R for 1 Acid or BN surrogates <10, then J flag positive and R flag non-detect associated sample results (i.e., acid or BN results) • If 2 or more Acid or BN %R >UCL, then J flag positive associated sample results (i.e., acid or BN results) • If 2 or more Acid or BN %R ≥10%, but <LCL, then J flag positive and UJ flag non-detect associated sample results (i.e., acid or BN results) • If 2 or more Acid or BN , with 1 %R >UCL and 1 %R ≥10%, but <LCL, then J flag positive and UJ flag non-detect associated sample results (i.e., acid or BN results) 		✓		Surrogate o-terphenyl was not recovered (0%) during the diluted analysis of samples 680-106803-1 through -4, -7, -8, and -10 through -18. Qualification of sample results is not warranted, as the surrogate compound was diluted out of the samples.	
28. Were internal standard (IS) results within lab/project specifications? <ul style="list-style-type: none"> • If IS area counts are less than 50% of the midpoint calibration standard, then J flag positive and UJ flag non-detect associated sample results • If IS area counts are greater than 100% of the midpoint calibration standard, then J flag positive results 		✓		The IS area counts were within lab/project specifications. However, according to the case narrative (Attachment C), samples listed below were accidentally double spiked the internal standards. <ul style="list-style-type: none"> • CV0971JJ-CS6" (680-106803-5) 	

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
<ul style="list-style-type: none"> If extremely low area counts are reported or performance exhibits a major abrupt drop-off, then a severe loss of sensitivity is indicated, J flag positive and R flag non-detect results If retention time of sample's internal standard is not within 30 seconds of the associated calibration standard, R flag associated data. The chromatographic profile for that sample must be examined to determine if any false positives or negatives exists. For shifts of large magnitude, the reviewer may consider partial or total rejection of the data for that sample fraction. Positive results need not be qualified as R, if mass spectral criteria are met. 				<ul style="list-style-type: none"> CV0971JJ-CSD6" (680-106803-6) CV0971JJ-CS24" (680-106803-9) CV0971AD-GS6" (680-106803-19) CV0971AD-GS12" (680-106803-20) <p>Qualification of data is not warranted, as the increase in internal standards was accounted for by the laboratory during the reporting of the sample results.</p>	
29. Were lab comments included in report?	✓			Refer to Attachment C (Case Narrative)	

Comments: The data validation was conducted in accordance with the *Non-Industrial Use Property Sampling Event QAPP for the 35th Avenue Removal Site, Birmingham, Alabama, Revision 1* (OTIE, October 2012). The data review process was modeled after the *USEPA Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Organic Methods Data Review* (EPA, October 1999) and *USEPA CLP NFG for Low Concentration Organic Methods Data Review* (EPA, June 2001). Sample results have been qualified based on the results of the data review process (**Attachment D**). Criteria for acceptability of data were based upon available site information, analytical method requirements, guidance documents, and professional judgment.

DV Flag Definitions:

- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- R The sample results are unusable. The analyte may or may not be present in the sample.
- U The analyte was analyzed for, but was not detected above the associated level; blank contamination may exist.
- UJ The analyte was not detected above the limit, and the limit is approximate and may be inaccurate or imprecise.

ATTACHMENT A
SAMPLE SUMMARY

SAMPLE SUMMARY

Client: Oneida Total Integrated Enterprises LLC

Job Number: 680-106803-1
Sdg Number: 680-106803-01

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-106803-1	CV0971VV-CS6"	Solid	10/27/2014 1445	10/31/2014 0934
680-106803-2	CV0971VV-CS12"	Solid	10/27/2014 1500	10/31/2014 0934
680-106803-2MS	CV0971VV-CS12"	Solid	10/27/2014 1500	10/31/2014 0934
680-106803-2MSD	CV0971VV-CS12"	Solid	10/27/2014 1500	10/31/2014 0934
680-106803-3	CV0971VV-CS18"	Solid	10/27/2014 1515	10/31/2014 0934
680-106803-4	CV0971VV-CS24"	Solid	10/27/2014 1530	10/31/2014 0934
680-106803-5	CV0971JJ-CS6"	Solid	10/28/2014 0840	10/31/2014 0934
680-106803-6	CV0971JJ-CSD6"	Solid	10/28/2014 0845	10/31/2014 0934
680-106803-7	CV0971JJ-CS12"	Solid	10/28/2014 0855	10/31/2014 0934
680-106803-8	CV0971JJ-CS18"	Solid	10/28/2014 0910	10/31/2014 0934
680-106803-9	CV0971JJ-CS24"	Solid	10/28/2014 0925	10/31/2014 0934
680-106803-10	CV0971NN-CS6"	Solid	10/28/2014 1015	10/31/2014 0934
680-106803-11	CV0971NN-CS12"	Solid	10/28/2014 1030	10/31/2014 0934
680-106803-12	CV0971NN-CSD12"	Solid	10/28/2014 1035	10/31/2014 0934
680-106803-13	CV0971NN-CS18"	Solid	10/28/2014 1045	10/31/2014 0934
680-106803-14	CV0971NN-CS24"	Solid	10/28/2014 1100	10/31/2014 0934
680-106803-15	CV0971AP-GS6"	Solid	10/28/2014 1120	10/31/2014 0934
680-106803-16	CV0971AP-GS12"	Solid	10/28/2014 1135	10/31/2014 0934
680-106803-17	CV0971AP-GS18"	Solid	10/28/2014 1150	10/31/2014 0934
680-106803-18	CV0971AP-GS24"	Solid	10/28/2014 1205	10/31/2014 0934
680-106803-19	CV0971AD-GS6"	Solid	10/28/2014 1250	10/31/2014 0934
680-106803-20	CV0971AD-GS12"	Solid	10/28/2014 1300	10/31/2014 0934

ATTACHMENT B

FIELD DUPLICATE EVALUATION

Evaluation of Field Duplicate Results

Attachment B

Analyte	CV0971JJ-CS6" 680-106803-5	RL	CV0971JJ- CSD6" 680-106803-6	RL	Unit	Avg. RLx5	RPD	Absolute difference	2x Avg RL	Action		
1-Methylnaphthalene	6.4	J	7.5	6.0	J	7.8	µg/kg	38.25	NA	0.4	15.3	None, absolute difference ≤ 2x Avg RL
2-Methylnaphthalene	7.7		7.5	8.4		7.8	µg/kg	38.25	NA	0.7	15.3	None, absolute difference ≤ 2x Avg RL
Anthracene	4.2	J	7.5	6.5	J	7.8	µg/kg	38.25	NA	2.3	15.3	None, absolute difference ≤ 2x Avg RL
Benzo(a)anthracene	35		7.5	39		7.8	µg/kg	38.25	NA	4	15.3	None, absolute difference ≤ 2x Avg RL
Benzo(a)pyrene	38		7.5	43		7.8	µg/kg	38.25	NA	5	15.3	None, absolute difference ≤ 2x Avg RL
Benzo(b)fluoranthene	64		7.5	68		7.8	µg/kg	38.25	6	NA	NA	None, RPD ≤ 50%
Benzo(g,h,i)perylene	16		7.5	19		7.8	µg/kg	38.25	NA	3	15.3	None, absolute difference ≤ 2x Avg RL
Benzo(k)fluoranthene	27		7.5	27		7.8	µg/kg	38.25	NA	0	15.3	None, absolute difference ≤ 2x Avg RL
Chrysene	40		7.5	43		7.8	µg/kg	38.25	7	NA	NA	None, RPD ≤ 50%
Dibenzo(a,h)anthracene	5.2	J	7.5	4.8	J	7.8	µg/kg	38.25	NA	0.4	15.3	None, absolute difference ≤ 2x Avg RL
Fluoranthene	53		7.5	61		7.8	µg/kg	38.25	14	NA	NA	None, RPD ≤ 50%
Indeno(1,2,3-cd)pyrene	13		7.5	15		7.8	µg/kg	38.25	NA	2	15.3	None, absolute difference ≤ 2x Avg RL
Naphthalene	5.9	J	7.5	5.1		7.8	µg/kg	38.25	NA	0.8	15.3	None, absolute difference ≤ 2x Avg RL
Phenanthrene	29		7.5	35		7.8	µg/kg	38.25	NA	6	15.3	None, absolute difference ≤ 2x Avg RL
Pyrene	49		7.5	53		7.8	µg/kg	38.25	8	NA	NA	None, RPD ≤ 50%

Note: If the analyte was not detected, then the cell was left blank.

µg/kg - micrograms per kilogram

J - Estimated value

NA - Not applicable

RL - Reporting limit

RPD - Relative percent difference

UJ - Not detected and the limit is estimated

Precision is based on either the absolute difference between sample results or RPD. If the sample results are less than or equal to 5x's the RL, then precision is based on the absolute difference between duplicate results. If sample results >5x's RL, then precision is evaluated using RPD. J-Flag sample results whenever the absolute difference is greater than the RL (2x for soils) or the RPD >20% (50% for soil). Table above presents the results for detected analytes only.

Evaluation of Field Duplicate Results

Attachment B

Analyte	CV097INN-CS12" 680-106803-11	RL	CV097INN-CSD12" 680-106803-12	RL	Unit	Avg. RLx5	RPD	Absolute difference	2x Avg RL	Action		
Benzo(a)anthracene	100	79	89	78	µg/kg	392.5	NA	11	157	None, absolute difference ≤ 2x Avg RL		
Benzo(a)pyrene	110	79	100	78	µg/kg	392.5	NA	10	157	None, absolute difference ≤ 2x Avg RL		
Benzo(b)fluoranthene	180	79	180	78	µg/kg	392.5	NA	0	157	None, absolute difference ≤ 2x Avg RL		
Benzo(g,h,i)perylene	46	J	79	45	J	78	µg/kg	392.5	NA	1	157	None, absolute difference ≤ 2x Avg RL
Benzo(k)fluoranthene	75	J	79	58	J	78	µg/kg	392.5	NA	17	157	None, absolute difference ≤ 2x Avg RL
Chrysene	150	79	130	78	µg/kg	392.5	NA	20	157	None, absolute difference ≤ 2x Avg RL		
Fluoranthene	170	79	150	78	µg/kg	392.5	NA	20	157	None, absolute difference ≤ 2x Avg RL		
Phenanthrene	110	79	83	78	µg/kg	392.5	NA	27	157	None, absolute difference ≤ 2x Avg RL		
Pyrene	160	79	140	78	µg/kg	392.5	NA	20	157	None, absolute difference ≤ 2x Avg RL		

Note: If the analyte was not detected, then the cell was left blank.

µg/kg - micrograms per kilogram

J - Estimated value

NA - Not applicable

RL - Reporting limit

RPD - Relative percent difference

UJ - Not detected and the limit is estimated

Precision is based on either the absolute difference between sample results or RPD. If the sample results are less than or equal to 5x's the RL, then precision is based on the absolute difference between duplicate results. If sample results >5x's RL, then precision is evaluated using RPD. J-Flag sample results whenever the absolute difference is greater than the RL (2x for soils) or the RPD >20% (50% for soil). Table above presents the results for detected analytes only.

ATTACHMENT C

CASE NARRATIVE

CASE NARRATIVE

Client: Oneida Total Integrated Enterprises LLC

Project: 35th Avenue Superfund Site

Report Number: 680-106803-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

No additional analytical or quality issues were noted, other than those described below or in the Definitions/Glossary page.

RECEIPT

The samples were received on 10/31/2014 9:34 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.6° C, 4.2° C and 4.4° C.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) LOW LEVEL PAH

Samples CV0971VV-CS6" (680-106803-1), CV0971VV-CS12" (680-106803-2), CV0971VV-CS18" (680-106803-3), CV0971VV-CS24" (680-106803-4), CV0971JJ-CS6" (680-106803-5), CV0971JJ-CSD6" (680-106803-6), CV0971JJ-CS12" (680-106803-7), CV0971JJ-CS18" (680-106803-8), CV0971JJ-CS24" (680-106803-9), CV0971NN-CS6" (680-106803-10), CV0971NN-CS12" (680-106803-11), CV0971NN-CSD12" (680-106803-12), CV0971NN-CS18" (680-106803-13), CV0971NN-CS24" (680-106803-14), CV0971AP-GS6" (680-106803-15), CV0971AP-GS12" (680-106803-16), CV0971AP-GS18" (680-106803-17), CV0971AP-GS24" (680-106803-18), CV0971AD-GS6" (680-106803-19) and CV0971AD-GS12" (680-106803-20) were analyzed for Semivolatile Organic Compounds (GC/MS) Low level PAH in accordance with EPA SW846 Method 8270D.

Method(s) 8270D_LL_PAH: The following sample(s) was diluted due to the nature of the sample matrix: CV0971AP-GS12" (680-106803-16), CV0971AP-GS18" (680-106803-17), CV0971AP-GS24" (680-106803-18), CV0971AP-GS6" (680-106803-15), CV0971JJ-CS12" (680-106803-7), CV0971JJ-CS18" (680-106803-8), CV0971NN-CS12" (680-106803-11), CV0971NN-CS18" (680-106803-13), CV0971NN-CS24" (680-106803-14), CV0971NN-CS6" (680-106803-10), CV0971NN-CSD12" (680-106803-12), CV0971VV-CS12" (680-106803-2), CV0971VV-CS18" (680-106803-3), CV0971VV-CS24" (680-106803-4), CV0971VV-CS6" (680-106803-1), CV0971VV-CS12" (680-106803-2 MS), CV0971VV-CS12" (680-106803-2 MSD). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method(s) 8270D_LL_PAH: Analyst accidentally double spiked the following samples with internal standard. Data has been corrected and high recovery flags have been removed. Data has been qualified and reported: (LCS 680-356398/22-A), (MB 680-356398/21-A), CV0971AD-GS12" (680-106803-20), CV0971AD-GS6" (680-106803-19), CV0971JJ-CS24" (680-106803-9), CV0971JJ-CS6" (680-106803-5), CV0971JJ-CS12" (680-106803-6).

Method(s) 8270D_LL_PAH: Manual integration was performed on the following sample(s): CV0971AD-GS12" (680-106803-20), CV0971AD-GS6" (680-106803-19), CV0971AP-GS12" (680-106803-16), CV0971AP-GS18" (680-106803-17), CV0971AP-GS24" (680-106803-18), CV0971AP-GS6" (680-106803-15), CV0971JJ-CS12" (680-106803-7), CV0971JJ-CS18" (680-106803-8), CV0971JJ-CS24" (680-106803-9), CV0971JJ-CS6" (680-106803-5), CV0971JJ-CSD6" (680-106803-6), CV0971NN-CS12" (680-106803-11), CV0971NN-CS18" (680-106803-13), CV0971NN-CS24" (680-106803-14), CV0971NN-CS6" (680-106803-10), CV0971NN-CSD12" (680-106803-12), CV0971VV-CS12" (680-106803-2), CV0971VV-CS18" (680-106803-3), CV0971VV-CS24" (680-106803-4), CV0971VV-CS6" (680-106803-1).

Method(s) 8270D_LL_PAH: The continuing calibration verification (CCV) analyzed in batch 356621 was outside the method criteria for the following analyte(s): o-terphenyl and Pyrene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

METALS (ICP)

Samples CV0971VV-CS6" (680-106803-1), CV0971VV-CS12" (680-106803-2), CV0971VV-CS18" (680-106803-3), CV0971VV-CS24" (680-106803-4), CV0971JJ-CS6" (680-106803-5), CV0971JJ-CSD6" (680-106803-6), CV0971JJ-CS12" (680-106803-7), CV0971JJ-CS18" (680-106803-8), CV0971JJ-CS24" (680-106803-9), CV0971NN-CS6" (680-106803-10), CV0971NN-CS12" (680-106803-11), CV0971NN-CSD12" (680-106803-12), CV0971NN-CS18" (680-106803-13), CV0971NN-CS24" (680-106803-14), CV0971AP-GS6" (680-106803-15), CV0971AP-GS12" (680-106803-16), CV0971AP-GS18" (680-106803-17), CV0971AP-GS24" (680-106803-18), CV0971AD-GS6" (680-106803-19) and CV0971AD-GS12" (680-106803-20) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C.

One or more metals analytes are outside QC precision and accuracy criteria for the MS and MSD of sample CV0971VV-CS12" (680-106803-2) in batch 680-357015. Refer to the QC report for details.

PERCENT SOLIDS/MOISTURE

Samples CV0971VV-CS6" (680-106803-1), CV0971VV-CS12" (680-106803-2), CV0971VV-CS18" (680-106803-3), CV0971VV-CS24"

(680-106803-4), CV0971JJ-CS6" (680-106803-5), CV0971JJ-CSD6" (680-106803-6), CV0971JJ-CS12" (680-106803-7), CV0971JJ-CS18" (680-106803-8), CV0971JJ-CS24" (680-106803-9), CV0971NN-CS6" (680-106803-10), CV0971NN-CS12" (680-106803-11), CV0971NN-CSD12" (680-106803-12), CV0971NN-CS18" (680-106803-13), CV0971NN-CS24" (680-106803-14), CV0971AP-GS6" (680-106803-15), CV0971AP-GS12" (680-106803-16), CV0971AP-GS18" (680-106803-17), CV0971AP-GS24" (680-106803-18), CV0971AD-GS6" (680-106803-19) and CV0971AD-GS12" (680-106803-20) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP.

ATTACHMENT D
QUALIFIED SAMPLE RESULTS

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-1

SDG No.: 680-106803-01

Client Sample ID: CV0971VV-CS6"

Lab Sample ID: 680-106803-1

Matrix: Solid

Lab File ID: 1KK0310.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/27/2014 14:45

Extract. Method: 3546

Date Extracted: 10/31/2014 17:08

Sample wt/vol: 30.05(g)

Date Analyzed: 11/03/2014 13:46

Con. Extract Vol.: 1(mL)

Dilution Factor: 10

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 13.6

GPC Cleanup:(Y/N) N

Analysis Batch No.: 356621

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	77	U	77	38
208-96-8	Acenaphthylene	77	U	77	38
120-12-7	Anthracene	43	J	77	38
56-55-3	Benzo[a]anthracene	310		77	38
50-32-8	Benzo[a]pyrene	360		77	14
205-99-2	Benzo[b]fluoranthene	540		77	38
191-24-2	Benzo[g,h,i]perylene	170		77	38
207-08-9	Benzo[k]fluoranthene	180		77	23
218-01-9	Chrysene	390		77	38
53-70-3	Dibenz(a,h)anthracene	50	J	77	38
206-44-0	Fluoranthene	540		77	38
86-73-7	Fluorene	77	U	77	38
193-39-5	Indeno[1,2,3-cd]pyrene	160		77	38
90-12-0	1-Methylnaphthalene	39	J	77	36
91-57-6	2-Methylnaphthalene	40	J	77	38
91-20-3	Naphthalene	77	U	77	38
85-01-8	Phenanthrene	260		77	28
129-00-0	Pyrene	510	J	77	38

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-1

SDG No.: 680-106803-01

Client Sample ID: CV0971VV-CS12"

Lab Sample ID: 680-106803-2

Matrix: Solid

Lab File ID: 1KK0309.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/27/2014 15:00

Extract. Method: 3546

Date Extracted: 10/31/2014 17:08

Sample wt/vol: 30.02(g)

Date Analyzed: 11/03/2014 13:23

Con. Extract Vol.: 1(mL)

Dilution Factor: 10

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 14.6

GPC Cleanup:(Y/N) N

Analysis Batch No.: 356621

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	78	U	78	39
208-96-8	Acenaphthylene	78	U	78	39
120-12-7	Anthracene	78	U	78	39
56-55-3	Benzo[a]anthracene	110		78	39
50-32-8	Benzo[a]pyrene	120		78	14
205-99-2	Benzo[b]fluoranthene	190		78	39
191-24-2	Benzo[g,h,i]perylene	75	J	78	39
207-08-9	Benzo[k]fluoranthene	67	J	78	23
218-01-9	Chrysene	150		78	39
53-70-3	Dibenz(a,h)anthracene	78	U	78	39
206-44-0	Fluoranthene	210		78	39
86-73-7	Fluorene	78	U	78	39
193-39-5	Indeno[1,2,3-cd]pyrene	64	J	78	39
90-12-0	1-Methylnaphthalene	38	J	78	36
91-57-6	2-Methylnaphthalene	78	U	78	39
91-20-3	Naphthalene	78	U	78	39
85-01-8	Phenanthrene	130		78	28
129-00-0	Pyrene	170	J	78	39

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-1

SDG No.: 680-106803-01

Client Sample ID: CV0971VV-CS18"

Lab Sample ID: 680-106803-3

Matrix: Solid

Lab File ID: 1KK0311.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/27/2014 15:15

Extract. Method: 3546

Date Extracted: 10/31/2014 17:08

Sample wt/vol: 30.05(g)

Date Analyzed: 11/03/2014 14:09

Con. Extract Vol.: 1(mL)

Dilution Factor: 10

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 14.5

GPC Cleanup:(Y/N) N

Analysis Batch No.: 356621

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	78	U	78	39
208-96-8	Acenaphthylene	78	U	78	39
120-12-7	Anthracene	78	U	78	39
56-55-3	Benzo[a]anthracene	150		78	39
50-32-8	Benzo[a]pyrene	140		78	14
205-99-2	Benzo[b]fluoranthene	240		78	39
191-24-2	Benzo[g,h,i]perylene	78		78	39
207-08-9	Benzo[k]fluoranthene	78		78	23
218-01-9	Chrysene	210		78	39
53-70-3	Dibenz(a,h)anthracene	78	U	78	39
206-44-0	Fluoranthene	250		78	39
86-73-7	Fluorene	78	U	78	39
193-39-5	Indeno[1,2,3-cd]pyrene	65	J	78	39
90-12-0	1-Methylnaphthalene	46	J	78	36
91-57-6	2-Methylnaphthalene	45	J	78	39
91-20-3	Naphthalene	78	U	78	39
85-01-8	Phenanthrene	170		78	28
129-00-0	Pyrene	220	J	78	39

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah	Job No.: 680-106803-1
SDG No.: 680-106803-01	
Client Sample ID: CV0971VV-CS24"	Lab Sample ID: 680-106803-4
Matrix: Solid	Lab File ID: 1KK0312.D
Analysis Method: 8270D_LL_PAH	Date Collected: 10/27/2014 15:30
Extract. Method: 3546	Date Extracted: 10/31/2014 17:08
Sample wt/vol: 30.02(g)	Date Analyzed: 11/03/2014 14:31
Con. Extract Vol.: 1(mL)	Dilution Factor: 10
Injection Volume: 1(uL)	Level: (low/med) Low
% Moisture: 17.5	GPC Cleanup:(Y/N) N
Analysis Batch No.: 356621	Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	81	U	81	40
208-96-8	Acenaphthylene	81	U	81	40
120-12-7	Anthracene	81	U	81	40
56-55-3	Benzo[a]anthracene	210		81	40
50-32-8	Benzo[a]pyrene	230		81	15
205-99-2	Benzo[b]fluoranthene	410		81	40
191-24-2	Benzo[g,h,i]perylene	110		81	40
207-08-9	Benzo[k]fluoranthene	150		81	24
218-01-9	Chrysene	310		81	40
53-70-3	Dibenz(a,h)anthracene	44	J	81	40
206-44-0	Fluoranthene	320		81	40
86-73-7	Fluorene	81	U	81	40
193-39-5	Indeno[1,2,3-cd]pyrene	100		81	40
90-12-0	1-Methylnaphthalene	81	U	81	38
91-57-6	2-Methylnaphthalene	81	U	81	40
91-20-3	Naphthalene	81	U	81	40
85-01-8	Phenanthrene	120		81	29
129-00-0	Pyrene	290	J	81	40

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-1

SDG No.: 680-106803-01

Client Sample ID: CV0971JJ-CS6"

Lab Sample ID: 680-106803-5

Matrix: Solid

Lab File ID: 1KK0313.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 08:40

Extract. Method: 3546

Date Extracted: 10/31/2014 17:08

Sample wt/vol: 30.02(g)

Date Analyzed: 11/03/2014 14:54

Con. Extract Vol.: 1(mL)

Dilution Factor: 1

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 11.0

GPC Cleanup:(Y/N) N

Analysis Batch No.: 356621

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	7.5	U	7.5	3.7
208-96-8	Acenaphthylene	7.5	U	7.5	3.7
120-12-7	Anthracene	4.2	J	7.5	3.7
56-55-3	Benzo[a]anthracene	35		7.5	3.7
50-32-8	Benzo[a]pyrene	38		7.5	1.3
205-99-2	Benzo[b]fluoranthene	64		7.5	3.7
191-24-2	Benzo[g,h,i]perylene	16		7.5	3.7
207-08-9	Benzo[k]fluoranthene	27		7.5	2.2
218-01-9	Chrysene	40		7.5	3.7
53-70-3	Dibenz(a,h)anthracene	5.2	J	7.5	3.7
206-44-0	Fluoranthene	53		7.5	3.7
86-73-7	Fluorene	7.5	U	7.5	3.7
193-39-5	Indeno[1,2,3-cd]pyrene	13		7.5	3.7
90-12-0	1-Methylnaphthalene	6.4	J	7.5	3.5
91-57-6	2-Methylnaphthalene	7.7		7.5	3.7
91-20-3	Naphthalene	5.9	J	7.5	3.7
85-01-8	Phenanthrene	29		7.5	2.7
129-00-0	Pyrene	49	J	7.5	3.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	54		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-1

SDG No.: 680-106803-01

Client Sample ID: CV0971JJ-CSD6"

Lab Sample ID: 680-106803-6

Matrix: Solid

Lab File ID: 1KK0314.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 08:45

Extract. Method: 3546

Date Extracted: 10/31/2014 17:08

Sample wt/vol: 30.05(g)

Date Analyzed: 11/03/2014 15:17

Con. Extract Vol.: 1(mL)

Dilution Factor: 1

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 14.7

GPC Cleanup:(Y/N) N

Analysis Batch No.: 356621

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	7.8	U	7.8	3.9
208-96-8	Acenaphthylene	7.8	U	7.8	3.9
120-12-7	Anthracene	6.5	J	7.8	3.9
56-55-3	Benzo[a]anthracene	39		7.8	3.9
50-32-8	Benzo[a]pyrene	43		7.8	1.4
205-99-2	Benzo[b]fluoranthene	68		7.8	3.9
191-24-2	Benzo[g,h,i]perylene	19		7.8	3.9
207-08-9	Benzo[k]fluoranthene	27		7.8	2.3
218-01-9	Chrysene	43		7.8	3.9
53-70-3	Dibenz(a,h)anthracene	4.8	J	7.8	3.9
206-44-0	Fluoranthene	61		7.8	3.9
86-73-7	Fluorene	7.8	U	7.8	3.9
193-39-5	Indeno[1,2,3-cd]pyrene	15		7.8	3.9
90-12-0	1-Methylnaphthalene	6.0	J	7.8	3.6
91-57-6	2-Methylnaphthalene	8.4		7.8	3.9
91-20-3	Naphthalene	5.1	J	7.8	3.9
85-01-8	Phenanthrene	35		7.8	2.8
129-00-0	Pyrene	53	J	7.8	3.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	54		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-1

SDG No.: 680-106803-01

Client Sample ID: CV0971JJ-CS12"

Lab Sample ID: 680-106803-7

Matrix: Solid

Lab File ID: 1KK0315.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 08:55

Extract. Method: 3546

Date Extracted: 10/31/2014 17:08

Sample wt/vol: 30.02(g)

Date Analyzed: 11/03/2014 15:40

Con. Extract Vol.: 1(mL)

Dilution Factor: 10

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 12.8

GPC Cleanup:(Y/N) N

Analysis Batch No.: 356621

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	77	U	77	38
208-96-8	Acenaphthylene	77	U	77	38
120-12-7	Anthracene	77	U	77	38
56-55-3	Benzo[a]anthracene	77	U	77	38
50-32-8	Benzo[a]pyrene	26	J	77	14
205-99-2	Benzo[b]fluoranthene	42	J	77	38
191-24-2	Benzo[g,h,i]perylene	77	U	77	38
207-08-9	Benzo[k]fluoranthene	77	U	77	23
218-01-9	Chrysene	77	U	77	38
53-70-3	Dibenz(a,h)anthracene	77	U	77	38
206-44-0	Fluoranthene	77	U	77	38
86-73-7	Fluorene	77	U	77	38
193-39-5	Indeno[1,2,3-cd]pyrene	77	U	77	38
90-12-0	1-Methylnaphthalene	77	U	77	36
91-57-6	2-Methylnaphthalene	77	U	77	38
91-20-3	Naphthalene	77	U	77	38
85-01-8	Phenanthrene	77	U	77	28
129-00-0	Pyrene	77	XUJ	77	38

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-1

SDG No.: 680-106803-01

Client Sample ID: CV0971JJ-CS18"

Lab Sample ID: 680-106803-8

Matrix: Solid

Lab File ID: 1KK0316.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 09:10

Extract. Method: 3546

Date Extracted: 10/31/2014 17:08

Sample wt/vol: 30.01(g)

Date Analyzed: 11/03/2014 16:03

Con. Extract Vol.: 1(mL)

Dilution Factor: 10

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 13.1

GPC Cleanup:(Y/N) N

Analysis Batch No.: 356621

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	77	U	77	38
208-96-8	Acenaphthylene	77	U	77	38
120-12-7	Anthracene	77	U	77	38
56-55-3	Benzo[a]anthracene	60	J	77	38
50-32-8	Benzo[a]pyrene	66	J	77	14
205-99-2	Benzo[b]fluoranthene	110		77	38
191-24-2	Benzo[g,h,i]perylene	77	U	77	38
207-08-9	Benzo[k]fluoranthene	41	J	77	23
218-01-9	Chrysene	88		77	38
53-70-3	Dibenz(a,h)anthracene	77	U	77	38
206-44-0	Fluoranthene	98		77	38
86-73-7	Fluorene	77	U	77	38
193-39-5	Indeno[1,2,3-cd]pyrene	77	U	77	38
90-12-0	1-Methylnaphthalene	77	U	77	36
91-57-6	2-Methylnaphthalene	77	U	77	38
91-20-3	Naphthalene	77	U	77	38
85-01-8	Phenanthrene	63	J	77	28
129-00-0	Pyrene	90	J	77	38

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-1

SDG No.: 680-106803-01

Client Sample ID: CV0971JJ-CS24"

Lab Sample ID: 680-106803-9

Matrix: Solid

Lab File ID: 1KK0317.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 09:25

Extract. Method: 3546

Date Extracted: 10/31/2014 17:08

Sample wt/vol: 30.01(g)

Date Analyzed: 11/03/2014 16:25

Con. Extract Vol.: 1(mL)

Dilution Factor: 1

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 15.5

GPC Cleanup:(Y/N) N

Analysis Batch No.: 356621

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	7.9	U	7.9	3.9
208-96-8	Acenaphthylene	7.9	U	7.9	3.9
120-12-7	Anthracene	7.9	U	7.9	3.9
56-55-3	Benzo[a]anthracene	15		7.9	3.9
50-32-8	Benzo[a]pyrene	17		7.9	1.4
205-99-2	Benzo[b]fluoranthene	31		7.9	3.9
191-24-2	Benzo[g,h,i]perylene	8.1		7.9	3.9
207-08-9	Benzo[k]fluoranthene	9.2		7.9	2.4
218-01-9	Chrysene	23		7.9	3.9
53-70-3	Dibenz(a,h)anthracene	7.9	U	7.9	3.9
206-44-0	Fluoranthene	21		7.9	3.9
86-73-7	Fluorene	7.9	U	7.9	3.9
193-39-5	Indeno[1,2,3-cd]pyrene	5.1	J	7.9	3.9
90-12-0	1-Methylnaphthalene	5.1	J	7.9	3.7
91-57-6	2-Methylnaphthalene	7.0	J	7.9	3.9
91-20-3	Naphthalene	7.9	U	7.9	3.9
85-01-8	Phenanthrene	13		7.9	2.8
129-00-0	Pyrene	20	J	7.9	3.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	55		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah	Job No.: 680-106803-1
SDG No.: 680-106803-01	
Client Sample ID: CV0971NN-CS6"	Lab Sample ID: 680-106803-10
Matrix: Solid	Lab File ID: 1KK0318.D
Analysis Method: 8270D_LL_PAH	Date Collected: 10/28/2014 10:15
Extract. Method: 3546	Date Extracted: 10/31/2014 17:08
Sample wt/vol: 30.02(g)	Date Analyzed: 11/03/2014 16:48
Con. Extract Vol.: 1(mL)	Dilution Factor: 10
Injection Volume: 1(uL)	Level: (low/med) Low
% Moisture: 13.7	GPC Cleanup:(Y/N) N
Analysis Batch No.: 356621	Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	78	U	78	38
208-96-8	Acenaphthylene	78	U	78	38
120-12-7	Anthracene	78	U	78	38
56-55-3	Benzo[a]anthracene	190		78	38
50-32-8	Benzo[a]pyrene	230		78	14
205-99-2	Benzo[b]fluoranthene	390		78	38
191-24-2	Benzo[g,h,i]perylene	100		78	38
207-08-9	Benzo[k]fluoranthene	130		78	23
218-01-9	Chrysene	270		78	38
53-70-3	Dibenz(a,h)anthracene	78	U	78	38
206-44-0	Fluoranthene	320		78	38
86-73-7	Fluorene	78	U	78	38
193-39-5	Indeno[1,2,3-cd]pyrene	70	J	78	38
90-12-0	1-Methylnaphthalene	91		78	36
91-57-6	2-Methylnaphthalene	110		78	38
91-20-3	Naphthalene	80		78	38
85-01-8	Phenanthrene	190		78	28
129-00-0	Pyrene	300	J	78	38

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-1

SDG No.: 680-106803-01

Client Sample ID: CV0971NN-CS12"

Lab Sample ID: 680-106803-11

Matrix: Solid

Lab File ID: 1KK0319.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 10:30

Extract. Method: 3546

Date Extracted: 10/31/2014 17:08

Sample wt/vol: 30.01(g)

Date Analyzed: 11/03/2014 17:11

Con. Extract Vol.: 1(mL)

Dilution Factor: 10

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 14.9

GPC Cleanup:(Y/N) N

Analysis Batch No.: 356621

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	79	U	79	39
208-96-8	Acenaphthylene	79	U	79	39
120-12-7	Anthracene	79	U	79	39
56-55-3	Benzo[a]anthracene	100		79	39
50-32-8	Benzo[a]pyrene	110		79	14
205-99-2	Benzo[b]fluoranthene	180		79	39
191-24-2	Benzo[g,h,i]perylene	46	J	79	39
207-08-9	Benzo[k]fluoranthene	75	J	79	23
218-01-9	Chrysene	150		79	39
53-70-3	Dibenz(a,h)anthracene	79	U	79	39
206-44-0	Fluoranthene	170		79	39
86-73-7	Fluorene	79	U	79	39
193-39-5	Indeno[1,2,3-cd]pyrene	79	U	79	39
90-12-0	1-Methylnaphthalene	79	U	79	36
91-57-6	2-Methylnaphthalene	79	U	79	39
91-20-3	Naphthalene	79	U	79	39
85-01-8	Phenanthrene	110		79	28
129-00-0	Pyrene	160	J	79	39

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah	Job No.: 680-106803-1
SDG No.: 680-106803-01	
Client Sample ID: CV0971NN-CSD12"	Lab Sample ID: 680-106803-12
Matrix: Solid	Lab File ID: 1KK0320.D
Analysis Method: 8270D_LL_PAH	Date Collected: 10/28/2014 10:35
Extract. Method: 3546	Date Extracted: 10/31/2014 17:08
Sample wt/vol: 30.04(g)	Date Analyzed: 11/03/2014 17:34
Con. Extract Vol.: 1(mL)	Dilution Factor: 10
Injection Volume: 1(uL)	Level: (low/med) Low
% Moisture: 14.6	GPC Cleanup:(Y/N) N
Analysis Batch No.: 356621	Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	78	U	78	39
208-96-8	Acenaphthylene	78	U	78	39
120-12-7	Anthracene	78	U	78	39
56-55-3	Benzo[a]anthracene	89		78	39
50-32-8	Benzo[a]pyrene	100		78	14
205-99-2	Benzo[b]fluoranthene	180		78	39
191-24-2	Benzo[g,h,i]perylene	45	J	78	39
207-08-9	Benzo[k]fluoranthene	58	J	78	23
218-01-9	Chrysene	130		78	39
53-70-3	Dibenz(a,h)anthracene	78	U	78	39
206-44-0	Fluoranthene	150		78	39
86-73-7	Fluorene	78	U	78	39
193-39-5	Indeno[1,2,3-cd]pyrene	78	U	78	39
90-12-0	1-Methylnaphthalene	78	U	78	36
91-57-6	2-Methylnaphthalene	78	U	78	39
91-20-3	Naphthalene	78	U	78	39
85-01-8	Phenanthrene	83		78	28
129-00-0	Pyrene	140	J	78	39

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-1

SDG No.: 680-106803-01

Client Sample ID: CV0971NN-CS18"

Lab Sample ID: 680-106803-13

Matrix: Solid

Lab File ID: 1KK0321.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 10:45

Extract. Method: 3546

Date Extracted: 10/31/2014 17:08

Sample wt/vol: 30.03(g)

Date Analyzed: 11/03/2014 17:56

Con. Extract Vol.: 1(mL)

Dilution Factor: 10

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 15.7

GPC Cleanup:(Y/N) N

Analysis Batch No.: 356621

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	79	U	79	39
208-96-8	Acenaphthylene	79	U	79	39
120-12-7	Anthracene	79	U	79	39
56-55-3	Benzo[a]anthracene	43	J	79	39
50-32-8	Benzo[a]pyrene	49	J	79	14
205-99-2	Benzo[b]fluoranthene	71	J	79	39
191-24-2	Benzo[g,h,i]perylene	79	U	79	39
207-08-9	Benzo[k]fluoranthene	29	J	79	24
218-01-9	Chrysene	53	J	79	39
53-70-3	Dibenz(a,h)anthracene	79	U	79	39
206-44-0	Fluoranthene	61	J	79	39
86-73-7	Fluorene	79	U	79	39
193-39-5	Indeno[1,2,3-cd]pyrene	79	U	79	39
90-12-0	1-Methylnaphthalene	79	U	79	37
91-57-6	2-Methylnaphthalene	79	U	79	39
91-20-3	Naphthalene	79	U	79	39
85-01-8	Phenanthrene	29	J	79	28
129-00-0	Pyrene	59	XJ	79	39

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-1

SDG No.: 680-106803-01

Client Sample ID: CV0971NN-CS24"

Lab Sample ID: 680-106803-14

Matrix: Solid

Lab File ID: 1KK0322.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 11:00

Extract. Method: 3546

Date Extracted: 10/31/2014 17:08

Sample wt/vol: 30.03(g)

Date Analyzed: 11/03/2014 18:19

Con. Extract Vol.: 1(mL)

Dilution Factor: 10

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 15.0

GPC Cleanup:(Y/N) N

Analysis Batch No.: 356621

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	79	U	79	39
208-96-8	Acenaphthylene	79	U	79	39
120-12-7	Anthracene	79	U	79	39
56-55-3	Benzo[a]anthracene	90		79	39
50-32-8	Benzo[a]pyrene	120		79	14
205-99-2	Benzo[b]fluoranthene	180		79	39
191-24-2	Benzo[g,h,i]perylene	47	J	79	39
207-08-9	Benzo[k]fluoranthene	88		79	24
218-01-9	Chrysene	140		79	39
53-70-3	Dibenz(a,h)anthracene	79	U	79	39
206-44-0	Fluoranthene	200		79	39
86-73-7	Fluorene	79	U	79	39
193-39-5	Indeno[1,2,3-cd]pyrene	79	U	79	39
90-12-0	1-Methylnaphthalene	79	U	79	36
91-57-6	2-Methylnaphthalene	79	U	79	39
91-20-3	Naphthalene	79	U	79	39
85-01-8	Phenanthrene	110		79	28
129-00-0	Pyrene	190	J	79	39

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-1

SDG No.: 680-106803-01

Client Sample ID: CV0971AP-GS6"

Lab Sample ID: 680-106803-15

Matrix: Solid

Lab File ID: 1KK0323.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 11:20

Extract. Method: 3546

Date Extracted: 10/31/2014 17:08

Sample wt/vol: 30.01(g)

Date Analyzed: 11/03/2014 18:42

Con. Extract Vol.: 1(mL)

Dilution Factor: 10

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 15.8

GPC Cleanup:(Y/N) N

Analysis Batch No.: 356621

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	80	U	80	39
208-96-8	Acenaphthylene	80	U	80	39
120-12-7	Anthracene	80	U	80	39
56-55-3	Benzo[a]anthracene	230		80	39
50-32-8	Benzo[a]pyrene	230		80	14
205-99-2	Benzo[b]fluoranthene	400		80	39
191-24-2	Benzo[g,h,i]perylene	92		80	39
207-08-9	Benzo[k]fluoranthene	170		80	24
218-01-9	Chrysene	270		80	39
53-70-3	Dibenz(a,h)anthracene	80	U	80	39
206-44-0	Fluoranthene	400		80	39
86-73-7	Fluorene	80	U	80	39
193-39-5	Indeno[1,2,3-cd]pyrene	61	J	80	39
90-12-0	1-Methylnaphthalene	55	J	80	37
91-57-6	2-Methylnaphthalene	70	J	80	39
91-20-3	Naphthalene	48	J	80	39
85-01-8	Phenanthrene	240		80	28
129-00-0	Pyrene	360	J	80	39

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah	Job No.: 680-106803-1
SDG No.: 680-106803-01	
Client Sample ID: CV0971AP-GS12"	Lab Sample ID: 680-106803-16
Matrix: Solid	Lab File ID: 1KK0324.D
Analysis Method: 8270D_LL_PAH	Date Collected: 10/28/2014 11:35
Extract. Method: 3546	Date Extracted: 10/31/2014 17:08
Sample wt/vol: 30.01(g)	Date Analyzed: 11/03/2014 19:05
Con. Extract Vol.: 1(mL)	Dilution Factor: 10
Injection Volume: 1(uL)	Level: (low/med) Low
% Moisture: 19.1	GPC Cleanup:(Y/N) N
Analysis Batch No.: 356621	Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	83	U	83	41
208-96-8	Acenaphthylene	83	U	83	41
120-12-7	Anthracene	110		83	41
56-55-3	Benzo[a]anthracene	470		83	41
50-32-8	Benzo[a]pyrene	470		83	15
205-99-2	Benzo[b]fluoranthene	830		83	41
191-24-2	Benzo[g,h,i]perylene	190		83	41
207-08-9	Benzo[k]fluoranthene	290		83	25
218-01-9	Chrysene	530		83	41
53-70-3	Dibenz(a,h)anthracene	68	J	83	41
206-44-0	Fluoranthene	870		83	41
86-73-7	Fluorene	47	J	83	41
193-39-5	Indeno[1,2,3-cd]pyrene	110		83	41
90-12-0	1-Methylnaphthalene	110		83	38
91-57-6	2-Methylnaphthalene	120		83	41
91-20-3	Naphthalene	120		83	41
85-01-8	Phenanthrene	590		83	30
129-00-0	Pyrene	690	J	83	41

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-1

SDG No.: 680-106803-01

Client Sample ID: CV0971AP-GS18"

Lab Sample ID: 680-106803-17

Matrix: Solid

Lab File ID: 1KK0325.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 11:50

Extract. Method: 3546

Date Extracted: 10/31/2014 17:08

Sample wt/vol: 30.01(g)

Date Analyzed: 11/03/2014 19:27

Con. Extract Vol.: 1(mL)

Dilution Factor: 10

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 14.9

GPC Cleanup: (Y/N) N

Analysis Batch No.: 356621

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	79	U	79	39
208-96-8	Acenaphthylene	79	U	79	39
120-12-7	Anthracene	79	U	79	39
56-55-3	Benzo[a]anthracene	71	J	79	39
50-32-8	Benzo[a]pyrene	87		79	14
205-99-2	Benzo[b]fluoranthene	130		79	39
191-24-2	Benzo[g,h,i]perylene	79	U	79	39
207-08-9	Benzo[k]fluoranthene	54	J	79	23
218-01-9	Chrysene	90		79	39
53-70-3	Dibenz(a,h)anthracene	79	U	79	39
206-44-0	Fluoranthene	120		79	39
86-73-7	Fluorene	79	U	79	39
193-39-5	Indeno[1,2,3-cd]pyrene	79	U	79	39
90-12-0	1-Methylnaphthalene	79	U	79	36
91-57-6	2-Methylnaphthalene	79	U	79	39
91-20-3	Naphthalene	79	U	79	39
85-01-8	Phenanthrene	41	J	79	28
129-00-0	Pyrene	100	J	79	39

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-1

SDG No.: 680-106803-01

Client Sample ID: CV0971AP-GS24"

Lab Sample ID: 680-106803-18

Matrix: Solid

Lab File ID: 1KK0326.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 12:05

Extract. Method: 3546

Date Extracted: 10/31/2014 17:08

Sample wt/vol: 30.01(g)

Date Analyzed: 11/03/2014 19:50

Con. Extract Vol.: 1(mL)

Dilution Factor: 10

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 15.6

GPC Cleanup:(Y/N) N

Analysis Batch No.: 356621

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	79	U	79	39
208-96-8	Acenaphthylene	79	U	79	39
120-12-7	Anthracene	79	U	79	39
56-55-3	Benzo[a]anthracene	79	U	79	39
50-32-8	Benzo[a]pyrene	24	J	79	14
205-99-2	Benzo[b]fluoranthene	39	J	79	39
191-24-2	Benzo[g,h,i]perylene	79	U	79	39
207-08-9	Benzo[k]fluoranthene	79	U	79	24
218-01-9	Chrysene	79	U	79	39
53-70-3	Dibenz(a,h)anthracene	79	U	79	39
206-44-0	Fluoranthene	79	U	79	39
86-73-7	Fluorene	79	U	79	39
193-39-5	Indeno[1,2,3-cd]pyrene	79	U	79	39
90-12-0	1-Methylnaphthalene	79	U	79	37
91-57-6	2-Methylnaphthalene	79	U	79	39
91-20-3	Naphthalene	79	U	79	39
85-01-8	Phenanthrene	79	U	79	28
129-00-0	Pyrene	79	XUJ	79	39

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-1

SDG No.: 680-106803-01

Client Sample ID: CV0971AD-GS6"

Lab Sample ID: 680-106803-19

Matrix: Solid

Lab File ID: 1KK0327.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 12:50

Extract. Method: 3546

Date Extracted: 10/31/2014 17:08

Sample wt/vol: 30.05(g)

Date Analyzed: 11/03/2014 20:13

Con. Extract Vol.: 1(mL)

Dilution Factor: 1

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 18.5

GPC Cleanup:(Y/N) N

Analysis Batch No.: 356621

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.2	U	8.2	4.0
208-96-8	Acenaphthylene	8.2	U	8.2	4.0
120-12-7	Anthracene	8.2	U	8.2	4.0
56-55-3	Benzo[a]anthracene	6.3	J	8.2	4.0
50-32-8	Benzo[a]pyrene	6.4	J	8.2	1.5
205-99-2	Benzo[b]fluoranthene	12		8.2	4.0
191-24-2	Benzo[g,h,i]perylene	8.2	U	8.2	4.0
207-08-9	Benzo[k]fluoranthene	4.3	J	8.2	2.5
218-01-9	Chrysene	8.6		8.2	4.0
53-70-3	Dibenz(a,h)anthracene	8.2	U	8.2	4.0
206-44-0	Fluoranthene	7.9	J	8.2	4.0
86-73-7	Fluorene	8.2	U	8.2	4.0
193-39-5	Indeno[1,2,3-cd]pyrene	8.2	U	8.2	4.0
90-12-0	1-Methylnaphthalene	8.2	U	8.2	3.8
91-57-6	2-Methylnaphthalene	8.2	U	8.2	4.0
91-20-3	Naphthalene	8.2	U	8.2	4.0
85-01-8	Phenanthrene	7.0	J	8.2	2.9
129-00-0	Pyrene	7.7	XJ	8.2	4.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	49		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-1

SDG No.: 680-106803-01

Client Sample ID: CV0971AD-GS12"

Lab Sample ID: 680-106803-20

Matrix: Solid

Lab File ID: 1KK0328.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 13:00

Extract. Method: 3546

Date Extracted: 10/31/2014 17:08

Sample wt/vol: 30.04(g)

Date Analyzed: 11/03/2014 20:36

Con. Extract Vol.: 1(mL)

Dilution Factor: 1

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 18.8

GPC Cleanup:(Y/N) N

Analysis Batch No.: 356621

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.2	U	8.2	4.1
208-96-8	Acenaphthylene	8.2	U	8.2	4.1
120-12-7	Anthracene	8.2	U	8.2	4.1
56-55-3	Benzo[a]anthracene	8.2		8.2	4.1
50-32-8	Benzo[a]pyrene	8.1	J	8.2	1.5
205-99-2	Benzo[b]fluoranthene	13		8.2	4.1
191-24-2	Benzo[g,h,i]perylene	8.2	U	8.2	4.1
207-08-9	Benzo[k]fluoranthene	5.2	J	8.2	2.5
218-01-9	Chrysene	9.6		8.2	4.1
53-70-3	Dibenz(a,h)anthracene	8.2	U	8.2	4.1
206-44-0	Fluoranthene	15		8.2	4.1
86-73-7	Fluorene	8.2	U	8.2	4.1
193-39-5	Indeno[1,2,3-cd]pyrene	8.2	U	8.2	4.1
90-12-0	1-Methylnaphthalene	8.2	U	8.2	3.8
91-57-6	2-Methylnaphthalene	8.2	U	8.2	4.1
91-20-3	Naphthalene	8.2	U	8.2	4.1
85-01-8	Phenanthrene	8.5		8.2	3.0
129-00-0	Pyrene	13	J	8.2	4.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	58		36-131